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**Abstract:** Unintended effects can occur by introducing computerized physician order entry (CPOE) if responsibilities are shifted from nurses to physicians, e.g. regarding the specification of the duration of intravenous (IV) administrations. The purpose of this quality assessment was to determine the rate of IV prescriptions with too short durations, when the prescribers were not assisted by clinical decision support (CDS).

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# Shifting Tasks from Nurses to Physicians: CDS Needed After Introduction of CPOE?

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**Keywords.** Electronic prescribing, medication errors, intravenous injections,  
parenteral infusions, clinical decision support systems

## 1. Introduction

Unintended effects can occur by introducing computerized physician order entry (CPOE) if responsibilities are shifted from nurses to physicians, e.g. regarding the specification of the duration of intravenous (IV) administrations. The purpose of this quality assessment was to determine the rate of IV prescriptions with too short durations, when the prescribers were not assisted by clinical decision support (CDS).

## 2. Methods

All IV drug prescriptions for inpatients at the University Hospital Zurich (tertiary care, 850 beds) were included over a 25 month period following the introduction of CPOE. The prescribed durations of IV administrations were compared to the minimal duration defined by the Swiss drug knowledge base.

## 3. Results

Analysis of the 100 most frequently ordered IV drugs showed that the duration of IV administrations was not defined in 112,594 of 247,255 orders (45.5%) and prescribed with too short durations in 13,640 orders (5.5%).

## 4. Discussion

Introduction of CPOE accompanied by a shift of tasks from nurses to physicians resulted in a high number of incomplete or erroneous IV medication orders. Patient safety might be improved by physicians' training complemented by CDS ensuring drug-specific default values for minimal durations of IV administration.

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